

In the Claims:

1 1. (Twice amended) An electronic switching apparatus for flexibly
2 interconnecting a plurality of signal endpoints, the apparatus comprising:
3 a first circuit for receiving at least one input signal from at least one
4 input endpoint, the first circuit having at least one pair of left and right barrel
5 shift registers coupled to at least one of the at least one input endpoint for
6 receiving the at least one input signal, shifting and rotating the at least one
7 input signal, and transmitting at least one output signal; and
8 a second circuit coupled to outputs from the first circuit for sending at
9 least one received signal to at least one output endpoint.

1 7. (Twice amended) A method for electronic signal coupling, the method
2 comprising the steps of:
3 receiving a first set of digital signals, the received first set of digital
4 signals being provided to at least one pair of left and right barrel shift registers;
5 shifting and rotating the first set of digital signals; and
6 transmitting a second set of digital signals, the transmitted second set of
7 digital signals being provided from a plurality of multiplexers, the plurality of
8 multiplexers being selectively coupled to the barrel shift registers such that at
9 least one signal selected in the first set of digital signals is selectively coupled
10 for transmission in the second set of digital signals.

1 14. (Once amended) A system for electronic signal coupling comprising:

2 means for receiving a first set of digital signals, the received first set of

3 digital signals being provided to at least one pair of left and right barrel shift

4 registers;

5 means for shifting and rotating the first set of digital signals; and

6 means for transmitting a second set of digital signals, the transmitted

7 second set of digital signals being provided from a plurality of multiplexers, the

8 plurality of multiplexers being selectively coupled to the barrel shift registers

9 such that at least one signal selected in the first set of digital signals is

10 selectively coupled for transmission in the second set of digital signals.